

	Ty pe	Hits	Search Text	DBs	Time Stamp	Com ments	Error Defini tion	Error s
1	BR S	425	700/245,247,248.ccls.	USPAT; EPO; JPO	2002/04 /16			0
2	BR S	382	700/245,247,248.ccls. and robot	USPAT; EPO; JPO	2002/04 /03			0
3	BR S	24	(700/245,247,248.ccls. and robot) and wafer	USPAT; EPO; JPO	2002/04 /03			0
4	BR S	4	((700/245,247,248.ccls. and robot) and substrate) and cassette	USPAT; EPO; JPO	2002/04 /03 17:22			0
5	BR S	11	((700/245,247,248.ccls. and robot) and wafer) and cassette	USPAT; EPO; JPO	2002/04 /03 17:59			0
6	BR S	9	(700/245,247,248.ccls. and robot and (wafer substrate) and cassette) and vacuum	USPAT; EPO; JPO	2002/04 /03 17:59			0
7	BR S	140 5	414/937,939,940.ccls.	USPAT; EPO; JPO	2002/04 /04			0
8	BR S	710	414/937,939,940.ccls. and cassette and wafer	USPAT; EPO; JPO	2002/04 /04			0
9	BR S	368	(414/937,939,940.ccls. and cassette and wafer) and vacuum	USPAT; EPO; JPO	2002/04 /04 09:45			0
10	BR S	235	((414/937,939,940.ccls. and cassette and wafer) and vacuum) and horizontal	USPAT; EPO; JPO	2002/04 /04 09:48			0
11	BR S	119	((((414/937,939,940.ccls. and cassette and wafer) and vacuum) and horizontal) and robot	USPAT; EPO; JPO	2002/04 /04 13:33			0
12	BR S	170	414/\$.ccls. and @py=2002	USPAT; EPO; JPO	2002/04 /04			0
13	BR S	21	414/937,939,940.ccls. and @py=2002	USPAT; EPO; JPO	2002/04 /04			0
14	BR S	0	jp-406644272-\$.did.	USPAT; EPO; JPO	2002/04 /04			0
15	BR S	0	"406244272"	USPAT; EPO; JPO	2002/04 /04			0
16	BR S	0	@pd=199409\$	JPO	2002/04 /04			0

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17	BR S	0	jp-404298059-\$.did.	JPO	2002/04 /04			0
18	BR S	4	414/490.ccls.	JPO	2002/07 /08			0
19	BR S	1	jp-06244272-\$.did.	JPO	2002/04 /04			0
20	BR S	1	jp-04298059-\$.did.	JPO	2002/04 /04			0
21	BR S	1	jp-05047896-\$.did.	JPO	2002/04 /04			0
22	BR S	0	jp-1074815-\$.did.	JPO	2002/04 /04			0
23	BR S	0	"74815"	JPO	2002/04 /04			0
24	BR S	609 535 2	\$74815\$	JPO	2002/04 /04 17:37		Trunc ation overfl ow.	1
25	BR S	0	74815\$	JPO	2002/04 /04			0
26	BR S	609 535 2	\$474815\$4	JPO	2002/04 /04 17:38		Trunc ation overfl ow.	1
27	BR S	227	414/940.ccls.	JPO	2002/04 /04			0
28	BR S	20	(700/245,247,248.ccls. and robot) and substrate	USPAT; EPO; JPO	2002/04 /05			0

	Document ID	Issue Date	Title	Current OR	Current XRef	Retrieval Classification	Inventor
1	US 6694224 B2	20040217	Control of robotic systems	700/245	219/497; 318/562; 700/17; ; 700/18; ; 700/83; 700/900; 701/23; ; 706/13; ; 709/201	700/245	Ramanan, Natarajan

	Document ID	Issue Date	Title	Current OR	Current XRef	Retrieval Classification	Inventor
2	US 6681151 B1	20040120	System and method for servoing robots based upon workpieces with fiducial marks using machine vision	700/259	219/121.85; 219/124.34; 348/94; ; 348/95; ; 356/237.1; 356/243.1; 382/146; 700/245; 700/254; 700/83; ; 700/85; ; 717/104	700/245	Weinzimmer, Russ et al.

	Document ID	Issue Date	Title	Current OR	Current XRef	Retrieval Classification	Inventor
3	US 6678583 B2	20040113	Robotic storage buffer system for substrate carrier pods	700/245	206/710; 206/711; 318/568.1; 414/200; 414/201; 414/217; 414/277; 700/229; 700/254; 700/264	700/245	Nasr, Amro et al.

	Document ID	Issue Date	Title	Current OR	Current XRef	Retrieval Classification	Inventor
4	US 6678581 B2	20040113	Method of calibrating a wafer edge gripping end effector	700/245	118/228; 118/500; 700/248; 700/249; 700/250; 700/258; 700/259; 700/260; 700/261; 700/262; 700/263; 700/264; 701/23; 901/30; 901/39	700/245; 700/248	Hung, Kwun-Goo et al.

	Document ID	Issue Date	Title	Current OR	Current XRef	Retrieval Classification	Inventor
5	US 6643564 B2	20031104	Method of determining retreat permission position of carrier arm and teaching device thereof	700/258	250/206.1; 369/53.19; 414/217; 414/730; 414/757; 414/777; 414/941; 700/248; 700/249; 700/259; 700/260; 700/261; 700/262; 700/263; 700/264; 700/265;	700/248	Kataoka, Yukinori et al.

	Document ID	Issue Date	Title	Current OR	Current XRef	Retrieval Classification	Inventor
6	US 6643563 B2	20031104	Trajectory planning and motion control strategies for a planar three-degree-of-freedom robotic arm	700/245	414/754; 414/757; 414/777; 414/814; 700/247; 700/248; 700/249; 700/250; 700/258; 700/259; 700/260; 700/261; 700/262; 700/263; 700/264; 700/900;	700/245; 700/247; 700/248	Hosek, Martin et al.



	Document ID	Issue Date	Title	Current OR	Current XRef	Retrieval Classification	Inventor
7	US 6618645 B2	20030909	Method of using a specimen sensing end effector to determine angular orientation of a specimen	700/254	414/730; 414/757; 414/777; 700/245; 700/248; 700/249; 700/250; 700/258; 700/259; 700/260; 700/261; 700/262; 700/263; 700/264; 700/275; 701/23;	700/245; 700/248	Bacchi, Paul et al.

	Document ID	Issue Date	Title	Current OR	Current XRef	Retrieval Classif	Inventor
8	US 6594550 B1	20030715	Method and system for using a buffer to track robotic movement	700/245	318/563; 318/565; 318/567; 318/568.14; 318/568.2; 318/568.22; 700/249; 700/252; 700/260; 700/261; 700/262; 901/14; ; 901/19; ; 901/20; ; 901/9	700/245	Okrah, Angel Y.
9	US 6594537 B1	20030715	Automated tissue assay using standardized chemicals and packages	700/100	700/11; 700/247	700/247	Bernstein, Steven A. et al.

	Document ID	Issue Date	Title	Current OR	Current XRef	Retrieval Classification	Inventor
10	US 6577923 B1	20030610	Apparatus and method for robotic alignment of substrates	700/245	118/715; 118/719; 118/724; 118/728; 118/729; 414/217; 414/280; 414/281; 700/230; 700/254; 700/258; 700/57; 701/23	700/245	White, John M. et al.

	Document ID	Issue Date	Title	Current OR	Current XRef	Retrieval Classification	Inventor
11	US 6567725 B1	20030520	Method and apparatus for teaching robot station location	700/264	318/568.1; 318/568.11; 318/568.12; 318/568.15; 318/568.16; 318/568.21; 318/570; 414/416.03; 414/935; 414/936; 414/937; 414/938; 414/939; 414/940; 700/218; 700/245;	700/245	Wilkey, Ann et al.
12	US 6556893 B2	20030429	Robotic system control	700/245	219/497; 318/562	700/245	Kumar, Subodha et al.

	Document ID	Issue Date	Title	Current OR	Current XRef	Retrieval Classification	Inventor
13	US 6549825 B2	20030415	Alignment apparatus	700/245	118/715; 118/719; 118/729; 204/298.25; 204/298.35; 414/217; 414/217.1; 414/226.05; 414/401; 414/416.03; 414/744.1; 414/939; 700/218; 700/254; 700/256; 700/260;	700/245	Kurata, Shunsuke

	Document ID	Issue Date	Title	Current OR	Current XRef	Retrieval Classif	Inventor
14	US 6532403 B2	20030311	Robot alignment system and method	700/254	318/567; 318/568.13; 318/568.14; 318/574; 414/416.03; 700/186; 700/214; 700/218; 700/215; 700/252; 700/258; 901/15; 901/2; 901/4	700/245	Beckhart, Gordon Haggott et al.
15	US 6510359 B1	20030121	Method and system for self-replicating manufacturing stations	700/121	700/245; 700/95	700/245	Merkle, Ralph C. et al.
16	US 6477440 B1	20021105	Methods of treating a semiconductor wafer	700/123	118/663; 414/416.03; 700/108; 700/121; 700/245	700/245	Davis, Shawn D.

	Document ID	Issue Date	Title	Current OR	Current XRef	Retrieval Classification	Inventor
17	US 6453214 B1	20020917	Method of using a specimen sensing end effector to align a robot arm with a specimen stored on or in a container	700/245	414/730; 414/757; 414/777; 414/816; 700/248; 700/249; 700/250; 700/259; 700/260; 700/261; 700/262; 700/263; 700/264; 701/23	700/245; 700/248	Bacchi, Paul et al.

	Document ID	Issue Date	Title	Current OR	Current XRef	Retrieval Classification	Inventor
18	US 6438460 B1	20020820	Method of using a specimen sensing end effector to determine the thickness of a specimen	700/275	414/416.09; 414/941; 700/245; 700/248; 700/249; 700/250; 700/258; 700/260; 701/23; 74/490.03	700/245; 700/248	Bacchi, Paul et al.



	Document ID	Issue Date	Title	Current OR	Current XRef	Retrieval Classif	Inventor
19	US 6438458 B1	20020820	Substrate conveying system in semiconductor manufacturing apparatus	700/250	318/568.21; 355/72; ; 355/74; ; 355/78; ; 414/416.03; 414/935; 414/937; 700/245; 700/260; 700/261; 700/262; 700/263; 701/23	700/245	Shimoike, Hiroshi et al.
20	US 6377870 B1	20020423	Device and method for delivering various transparent substrates into a high-precision measuring instrument	700/245	118/69; ; 165/80.1; 356/401; 396/604; 396/611; 430/5; 451/8	700/245	Blaesing-Bangert, Carola et al.

	Document ID	Issue Date	Title	Current OR	Current XRef	Retrieval Classification	Inventor
21	US 6360144 B1	20020319	Self-teaching robot arm position method	700/250	414/744.3; 414/744.5; 414/744.6; 700/245; 700/249; 700/258; 700/259; 700/260; 700/261; 700/262; 700/264; 74/490.03	700/245	Bacchi, Paul et al.
22	US 6343242 B1	200203129	Protective device for clean robot	700/245	318/568.11; 370/508; 370/516; 370/517; 700/260; 901/34; ; 901/47; ; 901/9	700/245	Nomura, Akihiro et al.

	Document ID	Issue Date	Title	Current OR	Current XRef	Retrieval Classification	Inventor
23	US 6327517 B1	20011204	Apparatus for on-the-fly center finding and notch aligning for wafer handling robots	700/245	318/560; 318/568.21; 700/254; 700/258; 700/259; 700/260; 700/261; 700/262; 701/23; ; 901/15; ; 901/16; ; 901/21; ; 901/39	700/245	Sundar, Satish
24	US 6298282 B1	20011002	Robot crash sensor system	700/245	340/3.3; 340/565; 340/825.22; 477/906; 477/907; 700/246; 74/490.01; 901/1	700/245	Guldi, Richard L. et al.

	Document ID	Issue Date	Title	Current OR	Current XRef	Retrieval Classification	Inventor
25	US 6282459 B1	20010828	Structure and method for detection of physical interference during transport of an article	700/245	235/375; 235/462.15; 318/568.1; 318/568.12; 318/568.16; 318/568.21; 414/217; 414/227; 414/730; 414/941; 438/220; 438/231; 700/101; 700/102; 700/111; 700/121	700/245	Ballantine, Arne W. et al.